Bruhat Bengaluru
Mahanagara Palike

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of Work:- Modified Estimate for Construction of Toilets & Repaires to BBMP Shops at Attur Layout Main Road in ward no -04 of Yelahanka Satellite Town Sub Division.

Modified Estimated Cost RS :- 24.97 Lakhs

Agency:- Sri Akshay Kumar HB

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Modified Estimate

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S.N	Description of items	Unit	No	L	B	D	Qty	Rate	Amount
1	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. Depth exceeding 1.5m, but not exceeding 3 m	Cum							
	Sump		1	3.60	3.60	2.10	27.22		
	Shops Front		1	30.00	0.90	0.15	4.05		
							31.27	218.68	6837.25
2	Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications.	Cum							
	Sump		1	3.60	3.60	0.30	3.89		
							3.89	2814.28	10941.92
3	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates.	Cum							
	Sump		1	3.60	3.60	0.15	1.94		
	Shops Front		1	30.00	0.90	0.15	4.05		
	Library Building Front		1	27.50	3.50	0.15	14.44		
			1	14.00	3.20	0.15	6.72		
			1	17.80	2.10	0.15	5.61		
							32.76	6103.29	199934.63
4	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paidseparately)	Cum							
	Shops & School Main Gate Front		1	39.00	0.90	0.10	3.51		
							3.51	6461.53	22679.97

5	Dismantling of existing structures like culverts,bridges,retaining walls and other structure comprising of masanry,cement concrete,wood work,steel work,including T&P and scaffolding wherever necessary,sorting the dismantled material,disposal of unserviceable material and stacking the serviceable material with all lift and lead.cement concrete GRADE m-15 & M 20. (Page No.8/Item No.2.7 B)	Cum							
	Dummy Columns		6	0.45	0.23	0.90	0.56		
							0.56	803.30	448.96
	Basic Rate	731.00							
	AW-10%	73.10							
	Total	**804.10**							
	Tender Premium(-0.10%)	0.80							
	Total RS	**803.30**							
6	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations and other similar works etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum							
	Quantity Vide Item No-01						31.27		
	(-)sump		1	3.30	3.30	2.50	27.23		
							4.04	224.18	905.91
7	Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 14 m3)	Cum							
	Quantity Vide Item No-01						31.27		
	Quantity Vide Item No-06						4.04		
							27.23	81.32	2213.94
8	Cost of Haulage Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km	t.Km							
	Quantity Vide Item No-07						27.23		
			1	27.23	1.28		**34.85**	105.49	3676.12
9	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges. Drain works & other parallel works from 0.50m to 3.50 m height. The granite/ trap/ basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates	Cum							
	For Sump:-Bottom Slab		1	3.30	3.30	0.20	2.18		
	Sump Walls		2	3.30	0.20	1.50	1.98		
			2	3.00	0.20	1.50	1.80		
	Cover Slab		1	3.00	3.30	0.20	1.98		
							7.94		
	(-)Deductions:-								
	Opening		1	1.00	1.00	0.20	0.20		
							7.74	7111.38	55027.86

10	Providing and laying in position Reinforced cement concrete for all Super structures of building , Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/ basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately) M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates -Column	Cum							
	Columns		6	0.20	0.40	2.65	1.27		
							1.27	7477.57	9511.47
11	Lintels over partition wall	Cum							
	Longer Span		2	6.95	0.20	0.20	0.56		
	Shorter Span		2	6.00	0.20	0.20	0.48		
	Lintel over partition wall		1	4.80	0.10	0.20	0.10		
			1	2.60	0.10	0.20	0.05		
			3	2.40	0.10	0.20	0.14		
							1.33	8157.35	10832.96
12	Roof Slab	Cum							
	Slab		1	6.00	6.95	0.15	6.26		
							6.26	8157.35	51024.22
13	BEAM	Cum							
	Longer Span		2	6.95	0.20	0.30	0.83		
	Shorter Span		3	6.00	0.20	0.30	1.08		
							1.91	8157.35	15613.17
14	Providing Thermo-Mechanically Treated bars of grade Fe-550 Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members whereever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately)	Kg							
	Sump		1	7.74	135.00		1044.63		
	Columns		1	1.27	180.00		228.96		
	Lintel		1	1.33	100.00		132.80		
	Roof		1	6.26	100.00		625.50		
	Beam		1	1.91	180.00		344.52		
							2376.41	105.49	250687.49
15	Providing and constructing load bearing wall with solid concrete blocks of size 400X200X200mm having block density not less than 1800kg/m3 having a minimum average compressive strength 5.00N/mm2 confirming to IS 2185 (part 1) :2005 and constructed with cement mortar 1:4,as per IS 2572:2005 including cost of materials, labour charges, scaffolding, curing, hire charges of machinaries etc., complete as per specifications.	Sqm							
	Longer Span		2	6.95		2.70	37.53		
	Shorter Span		3	4.50		2.70	36.45		
							73.98		
	(-)Deductions:-								
	V		2	0.75		0.60	0.90		
	D		2	0.90		2.10	3.78		
	Lintels		2	6.95		0.20	2.78		
			3	6.00		0.20	3.60		
	Columns		6	0.45		2.70	7.29		
							18.35		
							55.63	1314.28	73113.40

16	Providing and constructing non-load bearing wall with solid concrete blocks of size 400X100X200 having a block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 conforming to I.S : 2185 (Part 1) : 2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials, labour charges, scaffolding, curing, hire chargesof machineries etc., complete as per specifications.	Sqm							
	Gents Toilet								
	Long wall		1	3.20		2.90	9.28		
	Short Wall		3	1.20		2.90	10.44		
	Ladies Toilet								
	Long wall		1	4.80		2.90	13.92		
	Short Wall		3	1.20		2.90	10.44		
							44.08		
	(-)Deductions								
	D1		5	0.75		2.10	7.88		
							36.21	1032.97	37398.68
17	Providing and constructing load bearing wall with Solid Concrete blocks of size 400x150x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications	Sqm							
	Parapet wall:-Long wall		2	6.95		0.90	12.51		
	Short Wall		2	6.00		0.90	10.80		
							23.31	1165.93	27177.83
18	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement : 3 coarse sand) finished rough with sponge to brick masonry including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge.	Sqm							
	External Plastering:-								
	Longer Span		2	6.95		5.50	76.45		
	Shorter Span		2	4.50		5.50	49.50		
							125.95		
	(-)Deductions:-								
	V		2	0.75		0.60	0.90		
	D		2	0.90		2.10	3.78		
							4.68		
							121.27	353.85	42911.39
19	Provlding 12mm thick cement plaster in single coat with cement mortar 1:4 , to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications	Sqm							
	Internal Plastering								
	Longer Span		6	4.00		3.00	72.00		
	Shorter Span		2	3.00		3.00	18.00		
	Gents Toilet								
	Long wall		2	3.20		2.90	18.56		
	Short Wall		6	1.20		2.90	20.88		
	Ladies Toilet								
	Long wall		2	4.80		2.90	27.84		
	Short Wall		6	1.20		2.90	20.88		
	Cealing		1	6.95	6.00		41.70		
							219.86		
	(-)Deductions:-								
	V		2	0.75		0.60	0.90		
	D		2	0.90		2.10	3.78		
	4 D1		5	0.75		2.10	7.88		

								12.56		
								207.31	287.91	59685.18
20	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer in charge.	Sqm								
		Quantity Vide Item No-19						207.31	91.21	18908.29
21	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :Two coats on new work after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge.	Sqm								
	Internal Plastering	Quantity Vide Item No-19						207.31		
	BBMP Shops:-GF									
	Shops		16	3.95		3.00		189.60		
			16	3.30		3.00		158.40		
	Cealing paint		8	3.95	3.30			104.28		
	Staire Case		2	4.30		3.00		25.80		
			2	3.00		3.00		18.00		
	BBMP Shops:-FF									
	Shops		16	3.95		3.00		189.60		
			16	3.30		3.00		158.40		
	Cealing paint		8	3.95	3.30			104.28		
	Staire Case		2	4.30		3.00		25.80		
			2	3.00		3.00		18.00		
								1199.47		
	(-)Deductions									
	RS		16	2.40		2.25		86.40		
	MD		1	3.00		2.10		6.30		
	V		16	0.45		0.45		3.24		
								95.94		
								1103.53	98.90	109138.62
22	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications.	Sqm								
	External Plastering:-	Quantity Vide Item No-18						121.27		
	BBMP Shops									
	GF		2	29.70		3.12		185.33		
			2	4.50		3.12		28.08		
	FF		2	29.70		3.12		185.33		
			2	4.50		3.12		28.08		
	Chejja		4	29.70	0.45			53.46		
	front chejja		4	29.70	.1.80			213.84		
								815.39		
	(-)Deductions									
	RS		16	2.40		2.25		86.40		
	MD		1	3.00		2.10		6.30		
	V		16	0.45		0.45		3.24		
								95.94		
								719.45	145.05	104355.64
23	Providing and laying 52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per direction of Engineer incharge.	Sqm								
	Hardner Concrete									
	WC		1	1.20	1.50			1.80		

	Ladies Bath/wc		1	1.20	1.50		1.80		
	Gents Urinals		1	1.30	1.50		1.95		
	Gents Toilet		1	1.20	1.50		1.80		
	Ladies Toilet		2	1.20	1.50		3.60		
	Gents Toilet Passage		1	1.20	5.85		7.02		
	Ladies Toilet Passage		1	1.20	5.85		7.02		
	Entrance		1	2.80	1.05		2.94		
							27.93	774.72	**21637.93**
24	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per m2 including pointing in white cement mixed with pigment of matching shade complete	Sqm							
	Ceramic Tiles								
	WC		1	1.20	1.50		1.80		
	Gents Toilet		1	1.20	1.50		1.80		
	Gents Urinals		1	1.30	1.50		1.95		
	Ladies wc		1	1.20	1.50		1.80		
	Ladies Toilet		2	1.20	1.50		3.60		
	Gents Toilet Passage		1	1.20	5.85		7.02		
	Ladies Toilet Passage		1	1.20	5.85		7.02		
	Entrance		1	2.80	1.05		2.94		
							27.93	681.32	**19029.27**
25	Providing skirting, dadooing, rises of steps with colour glazed tiles 6mm thick on 10mm thick cement plaster 1:3 and jointed with white cement slurry over existing rough plaster surface using glazed tiles of approved make and size including cost of materials, labour, complete as per specifications	Sqm							
	Wall Cladding								
	Short Wall		1	4.80		2.10	10.08		
			1	5.20		2.10	10.92		
			10	1.20		2.10	25.20		
			1	2.80		2.10	5.88		
	Long Wall		2	5.85		2.10	24.57		
			2	4.80		2.10	20.16		
			4	4.50		2.10	37.80		
			1	2.80		2.10	5.88		
							140.49		
	(-)Deductions:-V		2	0.75		0.60	0.90		
	D2		5	0.70		2.10	7.35		
	Opening		1	2.80		2.10	5.88		
							14.13		
							126.36	1139.56	**143994.80**
26	Providing Mathi/Nandi wood frames of doors, windows, clerestory windows, ventilators and other frames, wrought, framed or assembled including making plaster groves (excluding cost of cement concrete and side clamps), but including cost of materials, labour, usage charges complete as per specifications.	Cum							
	D		2	6.00	0.125	0.10	0.15		
							0.15	82795.52	**12419.33**
27	Providing and fixing in position fully panelled Matti/Nandi wood shutters for doors with, stiles and rails of 35mm. thick with bottom and lock rails 180mm wide top rail and stiles 100mm wide as per drawing and panels of 25mm thick including cost of materials, labour, usage charges complete as per specifications. (excluding cost of fixtures)	Sqm							
	D		2	0.90		2.10	3.78		
							3.78	4424.17	**16723.36**

28	Providing and fixing fiber glass reinforced plastic(FRP) Door frames of cross-section 90mm x 45mm having single rebate of 32mm x 15mm to receive shutter of 30mm thickness. The laminate shall be moulded with fire resistant grade unsaturated polyrster resin and chopped mat. Door frame laminate shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frames shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame	M							
	D2		5	5.70			28.50		
							28.50	693.41	**19762.19**
29	Providing and fixing to existing door frames. 30mm thick glass fiber reinforced plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made ith fire-retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate for forming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5mm thick FRP laminate for panels conforming to IS:14856, including fixing to frames	Sqm							
	D2		5	0.75		2.10	7.88		
							7.88	3434.06	**27043.22**
30	Painting wood work with Deluxe Multi Surface Paint of required shade. Two coat applied @ 0.90 ltr/10 m◆ over an under coat of primer applied @0.75 ltr/10 m◆ of approved brand and manufacture to give an even shade including preparing the surface after thorougly cleaning oil, grease, dirt and foreign matter, sand papering and knotting , cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge.	Sqm							
	D		2	6.00		0.10	1.20		
							1.20	115.38	**138.46**
31	Providing & fixing of louvered ventilator made out of multi chambered UPVC(Matching to RAL-9016) sections and with minimum TiO2(Titanium Dioxide) at 6PHR with TPE(Thermo Plastic Elastomer) and lead free with gaskets -grey colour having isolated drainage and reinforced with Galvanized Iron profile through-out the ventilator frame. The frame having overall size of 39mm x 39mm with GI reinforcement of 1mm thickness. Louver clip in Aluminium (powder coated in white) will be used on the frame along with plastic parts for fixing the 4 mm pin head glass. Wall thickness of frame shall be 2mm.Maximum possible size – 1000mm x 1000mm. (The cost is inclusive of all fixtures and separate charges for minor T&P's shall not be made).	Sqm							
	Ventilator		2	0.75		0.60	0.90		
							0.90	5351.64	**4816.48**
32	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings / wooden frames with rawl plugs screws etc.	Kg							
	Ventilator		2	0.75		0.60	0.90		
				(0.90x21kg)			**18.90**	174.73	**3302.40**
33	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two coat applied @ 0.90 ltr/10 m◆ over an under coat of primer applied @ 0.80 ltr/10 m◆ of approved brand and manufacture including preparing the surface after thorougly cleaning oil, grease, dirt and foreign matter, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge.	Sqm							
	Ventilator		2	0.75		0.60	0.90		
							0.90	116.48	**104.83**

34	Providing and placing on terrace(at all floor levels), polyethylene water storage tanks as per IS 12701 marked,with cover and suitable locking arrangement and making necessary holes for inlet,outlet and overflow pipes but without fittings and the base support for tank(For 1000 litre capacity)	Ltr							
	Sintex Tank		1	4000.00			4000.00		
			1	4000.00			4000.00		
							8000.00	8.79	**70320.00**
35	Supply and delivery of Centrifugal pumpset at site brand new best make and with discharge duty confirming to ISI standards and its latest amendments2 HP, Size 50x40 Head 22M, Discharge 186 LPM	Each							
			1				1.00		
							1.00	19197.78	**19197.78**
36	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required W.C. pan with ISI marked white solid plastic seat and lid	Each							
			3				3.00		
							3.00	4424.17	**13272.51**
37	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:One urinal basin with 5 litre white P.V.C. automatic flushing cistern	Each							
			3				3.00		
							3.00	3885.71	**11657.13**
38	PTMT grating 100 mm dia.	Each							
			8				8.00		
							8.00	17.58	**140.64**
39	White Vitreous China Flat back wash basin size 550x 400 mm.	Each							
			4				4.00		
							4.00	604.40	**2417.60**
40	Providing and fixing brass bib cock of approved quality : 20 mm nominal bore	Nos							
			8				8.00		
							8.00	379.12	**3032.96**
41	Providing and fixing brass stop cock of approved quality : 20 mm nominal bore	Nos							
			2				2.00		
							2.00	379.12	**758.24**
42	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : 20 mm nominal bore	Nos							
			1				1.00		
							1.00	395.60	**395.60**
43	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and good the walls etc.,) 20mm nominal dia pipes	M							
	Water Line Pipe		1	40.00			40.00		
							40.00	409.89	**16395.60**

44	Providing and fixing on wall face unplasticised rigid PVC rain water pipes conforming to IS:13592 Type A, including jointing with seal ring conforming to IS:5382, leaving 10mm gap for thermal expansion, [i] single socketed pipes 100mm diameter	M								
	Rain Water Pipes		2	9.00			18.00			
							18.00	278.02	**5004.00**	
45	Repair of pull and push type rolling shutters of made of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations the which ever parts unserviceable should be replace (Springs, wheels, Shaft & replace the leafs which corroded) new one with all necessary including cost of materials, labour, complete as per specifications	Sqm								
	Rolling Shutter		10	2.40		2.25	54.00			
							54.00	510.99	**27593.46**	
46	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge.	Sqm								
	Rolling Shutter		5	2.40		2.25	27.00			
							27.00	2758.24	**74472.48**	
47	Providing and laying water proofing treatment to the Roof with PU based single component elastomeric pure polyurethane based coating on New terrace/Chajjas/Sunken portion of WC:Bathroom, cold applied PU waterproofing membrane that is highly elastic with elongation greater than 400% and tensile strength greater than 2MPa as per ASTM D412. The waterproofing membrane to be applied in 2coats @ 1.6kg per m2 to achieve final DFT (dry film thickness) of 1mm including prime coat of epoxy primer @150 g per m2 and protection with 120gsm Geo-textile over the waterproofing membrane. The finished cost to include surface preparation, making coving at Junction, Bore Packing, treatment of construction joints completely as per specification & with a 10 years warranty on product & work from certified manufacturers as per the direction of the Engineer In charge.	Sqm								
	Terrace		1	29.70	4.50		133.65			
							133.65	818.68	**109416.58**	
48	Providing and laying water proofing treatment to the Water tanks & Liquid Retaining structures with two component acrylic polymer modified cementitious waterproofing membrane with minimum elongation of 50% applied @ 1.5 kg/m2 for internal side waterproofing in two layers with waiting period of 4-6 hrs per layer and food grade epoxy coating in two coats certified by CFTRI Mysuru, including surface preparation completely as per specification & with a 10 years warranty on product & work from certified manufacturers as per the direction of the Engineer In charge.	Sqm								
	For Sump:-Bottom Slab		1	3.30	3.30		10.89			
	Sump Walls		2	3.30		0.20	1.32			
			2	3.00		0.20	1.20			

							13.41	500.00	**6705.00**
49	Providing and laying heavy duty cobble stones 75mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per m2 over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and Usage charges of machinery complete as perspecifications.	Sqm							
	Library Building Front		1	27.50	3.50		96.25		
			1	14.00	3.20		44.80		
			1	17.80	2.10		37.38		
							178.43	1258.24	**224507.76**
50	Open Conduit System Supplying heavy gauge PVC conduit pipe ..... dia ..... mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc , and fixing using inverted wood plugs in case of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of700mm using NF screws. 19/20 mm dia 2 mm thick	M							
			1	120.00			120.00		
							120.00	67.93	**8151.60**
51	Supplying and flush mounting teak wooden box without front plank, made of not less than 12 mm thick wood, after due groove cutting, finishing with necessary cement plastering complete 8" x 6" x 3" (203 x 152 x 76 mm)	Each							
			12				12.00		
							12.00	74.93	**899.16**
52	Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using 2x1.5mm2 (Phase & Neutral) & 1x1.0 mm2 (Earth wire) FRLS multi strand PVC insulated copper wire (confirming to IS-694: and latest amendments) with a 6A flush type SP control switch shall be fixed on the existing plastic sheet/ gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. Short point upto 3m from tapping point to out let via switch	Each							
			3				3.00		
							3.00	275.72	**827.16**
53	Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using 2x1.5mm2 (Phase & Neutral) & 1x1.0 mm2 (Earth wire) FRLS multi strand PVC insulated copper wire (confirming to IS-694: and latest amendments) with a 6A flush type SP control switch shall be fixed on the existing plastic sheet/ gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC roundblock. complete for each outlet.Medium point above 3m upto 6m from tapping point to out let via switch	Each							
			5				5.00		
							5.00	385.61	**1928.05**
54	Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using 2x1.5mm2 (Phase & Neutral) & 1x1.0 mm2 (Earth wire) FRLS multi strand PVC insulated copper wire (confirming to IS-694: and latest amendments) with a 6A flush type SP control switch shall be fixed on the existing plastic sheet/ gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. Long point above 6m upto 10m from tapping point to out let viaswitch	Each							
			5				5.00		
							5.00	566.43	**2832.15**

55	Supplying 6A flush type socket and 6 A flush type SP switch either surface/flush mounting in existing gang box or in 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required as per IS 1293 and IS 3654 6A 3/5 Way	Each							
			2				2.00		
							2.00	142.86	**285.72**
56	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments. 1.5 sqmm	M							
			1	120.00			120.00		
							120.00	25.97	**3116.40**
57	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments. 2.5 sqmm	M							
			1	60.00			60.00		
							60.00	39.96	**2397.60**
58	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.4 sqmm	M							
			1	250.00			250.00		
							250.00	58.94	**14735.00**
59	Supplying 4mm thick plastic sheet with necessary nitches for fixing switches, regulators etc, and fixing on existingwooden or metal box using N.F. screws.	Sq Cm							
			1	3000.00			3000.00		
							3000.00	0.29	**870.00**
60	Supplying & fixing retrofit type-PL- LED Lamp ..... W LED linear source with CCT 6500 degree K, CRI> 70%. efficacy >80 lumen per W, life> 25000 burning hours and Compliance to IS 10322/IEC 60598, LM 79 & LM 80. The LED are driven by HF electronic driver integrated in the system, with PF > 0.95, power loss should < 5% of lamp Wage., short circuit & open circuit protection to be integrated in the circuit, THD less than 20%, Life as per LM 79. The operating input voltage should be between 130 to275 V. Tested by NABL/CPRI accredited laboratory with 2 years Warranty against any manufacturing defect working under standard electrical condition. 18-20 W	Each							
			12				12.00		
							12.00	690.31	**8283.72**
61	Supply wall Mountaing fan suitable to operate of single phase-230 V A C Supply 400mm sweep a Group A	Each							
			2				2.00		
							2.00	2835.16	**5670.32**
62	Supplying and fixing of T5 Fluorescent Tube with 14W power consumption with low 3mg Mercury content & below 40% glass content than TS lamp & 20% less phosphor coating than T8 with initial lumen on 1350 (for 3000-6500 deg Kelvin), rated Avg life (12 Hr. Cycle) of greater than 35000 burring hours. Operating voltage range from 180V to 265V, 50Hz AC power Supply-14 W Lamp	Each							
			25				25.00		
							25.00	131.87	**3296.75**
63	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws. 20" x 20" x 2.5"	Each							
			15				15.00		

								15.00	314.69	4720.35
64	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.32 A	Each								
			12					12.00		
								12.00	199.80	**2397.60**
65	Supplying of on load change over switches 4 poles, AC- 23A Duty, 415V, 50Hz, AC Supply. (Open Execution) upto 63 A	Each								
			12					12.00		
								12.00	5179.82	**62157.84**
66	Supplying & fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 50-63 A TPN	Each								
			5					5.00		
								5.00	2396.60	**11983.00**

67	Supplying & fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.6-32 A TPN	Each							
			5				5.00		
							5.00	1775.22	**8876.10**
68	Supplying, fixing and wiring Electronic Trivector Meter (ETV) 5to 32/63 A three phase 4 wire whole current class-1 Accuracy Energy Meter.	Each							
			1				1.00		
							1.00	5119.88	**5119.88**
								Total RS	**2115508.62**
							Add 18% Of GST Rs		380791.55
									699.83
69	Miscellanious and unforsean Charges	L/S					**Grand Total Rs**		**2497000.00**
							(Rupees Twenty Four Lakh Ninety Seven Thousand Only)		

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.
2 The Modified Estimate is prepared as per the PW.P & IWTD SR 2022-2023 and Rate analysies including the under Estimate.
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P limits

Assistant Engineer
Ward No: 04

Executive Engineer
Yelahanka Division

Assistant Executive Engineer
Yelahanka Sattelite Town Sub Division

Technical Sanction
Accorded For Rs. 2497000/-
Head of A/C. P.3726
CER NO : 58 **Dt:** 13.03.2023